

Project Number: G104239938

Date Issued: 11/27/2024

ETL Verified Certificate of Conformance number: 3184201CRT-001c

Test Report Number: 104239938CRT-025a



Applicant:

Berk-Tek LLC
132 White Oak Rd
New Holland, PA 17557

Manufacturer:

Berk-Tek LLC
132 White Oak Rd
New Holland, PA 17557

Applicant Contact: Mr. Michael Boland

Mfg. Contact: Mr. Michael Boland

Dear Mr. Boland

Intertek is pleased to provide this letter report covering the testing of your 4-pair, 23 AWG, F/UTP, CMR, horizontal (solid) cable covered by ETL Verified certificate of conformance number 3184201CRT-001c. The sample was randomly selected by an Intertek inspector from your manufacturing facility, Berk-Tek LLC, on 10/23/2024 for Quarter 4 2024 follow-up testing.

The testing was performed at Intertek located in Cortland, NY from 11/26/2024 through 11/26/2024, to the ANSI/TIA-568.2-E standard(s) for category 6A and passed the applicable requirements.

We have appreciated this opportunity to be of service to you. If there are any questions regarding this letter or any other services offered by Intertek, Please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads "Antoine Pelletier".

Antoine Pelletier
Project Engineer
Global Cabling Products Testing
e-mail: antoine.pelletier@intertek.com
Phone: (607) 758-6718

A handwritten signature in black ink that reads "Craig L. Williams".

Craig L. Williams
Technician
Global Cabling Products Testing
Phone: (607) 758-6321

Summary

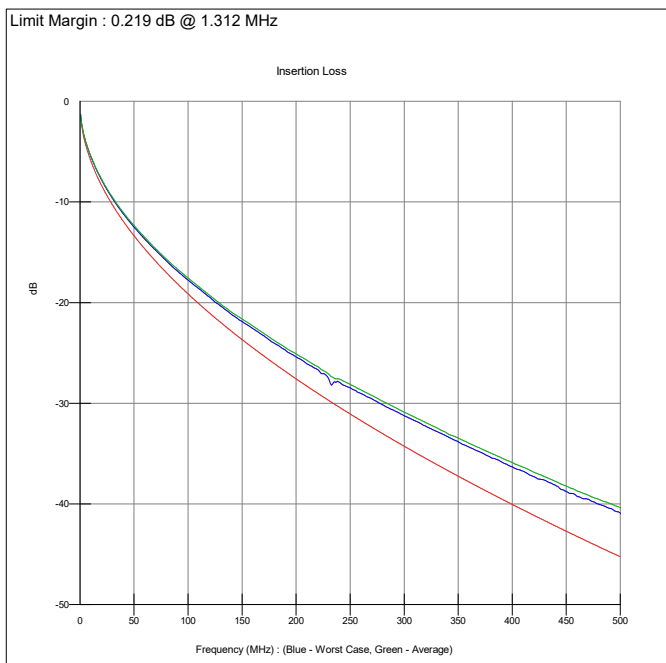
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

DC Resistance (Ohms)		
Worst Case	Average	Spec
7.3	7.2	9.4
7.4	7.2	9.4

DC Resistance Unbalance (%)		
Worst Case	Average	Spec
0.7	0.3	5.0

DC Resistance Unbalance Pair-Pair (%)		
Worst Case	Average	Spec
1.6	0.8	5.0

Capacitance Unbalance Pair-Ground (pF/100m)		
Worst Case	Average	Spec
15.3	7.1	330.0

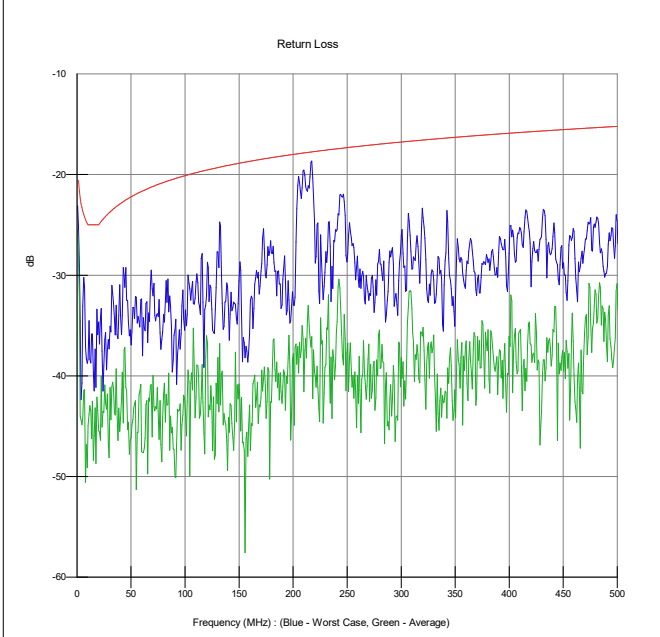


Insertion Loss			
Freq	Worst Case	Average	Spec
1.	1.8	1.8	2.1
4.	3.5	3.5	3.8
8.	4.9	4.9	5.3
10.	5.5	5.4	5.9
16.	7.0	6.9	7.5
20.	7.8	7.7	8.4
25.	8.8	8.7	9.4
31.25	9.8	9.7	10.5
62.5	14.0	13.8	15.0
100.	17.8	17.6	19.1
250.	28.5	28.1	31.1
500.	40.9	40.4	45.2

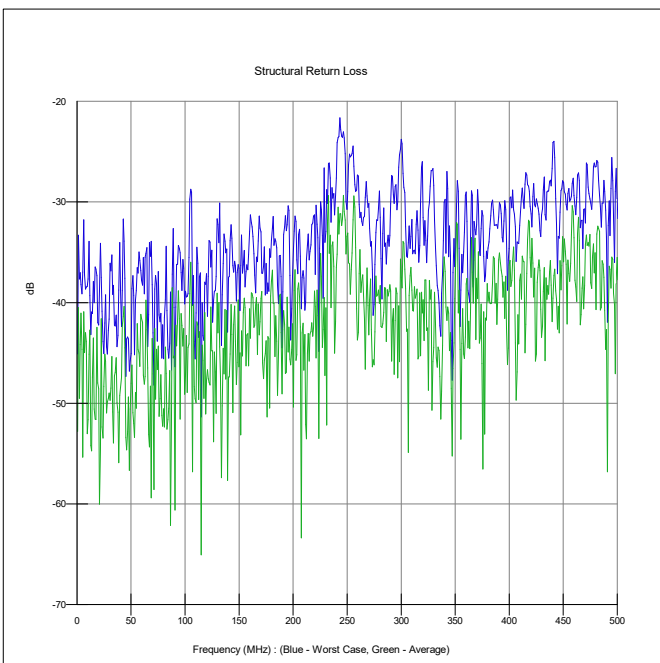
Summary

Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 0.917 dB @ 217.271 MHz



Return Loss			
Freq	Worst Case	Average	Spec
1.	24.3	27.0	20.2
4.	42.5	44.5	23.0
8.	37.6	49.7	24.5
10.	38.5	46.2	25.0
16.	41.1	45.7	25.0
20.	34.7	45.5	25.0
25.	39.3	43.1	24.3
31.25	35.6	44.0	23.6
62.5	35.4	46.8	21.5
100.	37.7	43.0	20.1
250.	28.4	37.4	17.3
500.	25.8	31.4	15.2

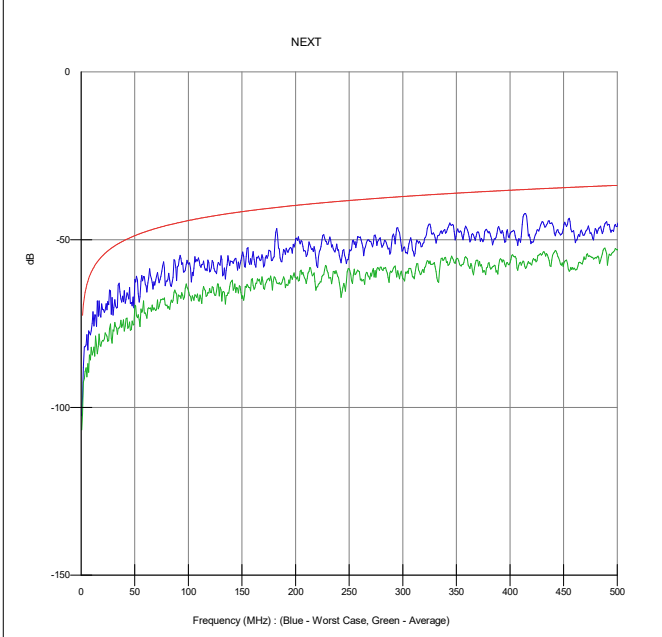


Structural Return Loss			
Freq	Worst Case	Average	Spec
1.	37.8	45.2	
4.	39.8	42.2	
8.	38.6	43.2	
10.	37.9	52.0	
16.	39.7	50.7	
20.	42.2	48.8	
25.	44.7	47.8	
31.25	36.8	48.6	
62.5	37.8	47.8	
100.	41.9	48.1	
250.	30.4	33.3	
500.	33.0	36.0	

Summary

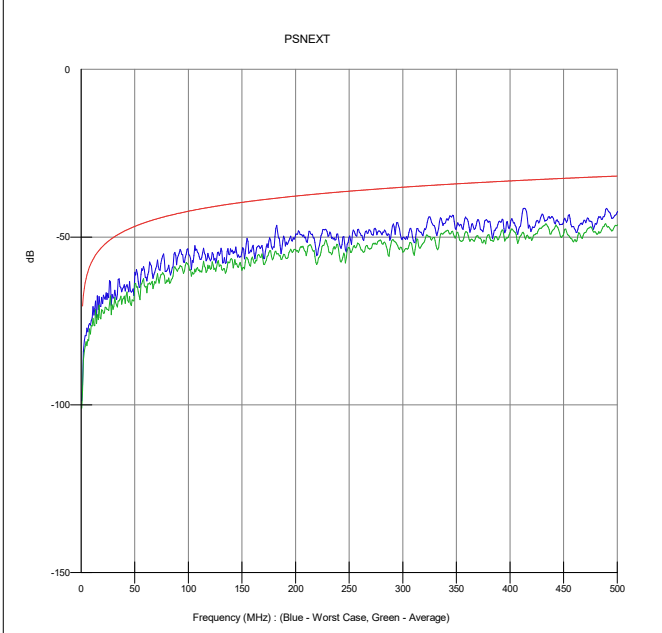
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 6.296 dB @ 182.360 MHz



NEXT			
Freq	Worst Case	Average	Spec
1.	99.7	103.7	73.7
4.	81.7	89.0	65.3
8.	78.3	84.7	60.8
10.	75.6	83.7	59.3
16.	72.4	81.5	56.2
20.	70.8	80.0	54.8
25.	68.6	80.2	53.3
31.25	69.0	75.0	51.9
62.5	62.7	70.5	47.4
100.	57.4	65.2	44.3
250.	54.0	58.8	38.3
500.	45.8	53.1	33.8

Limit Margin : 8.112 dB @ 182.360 MHz

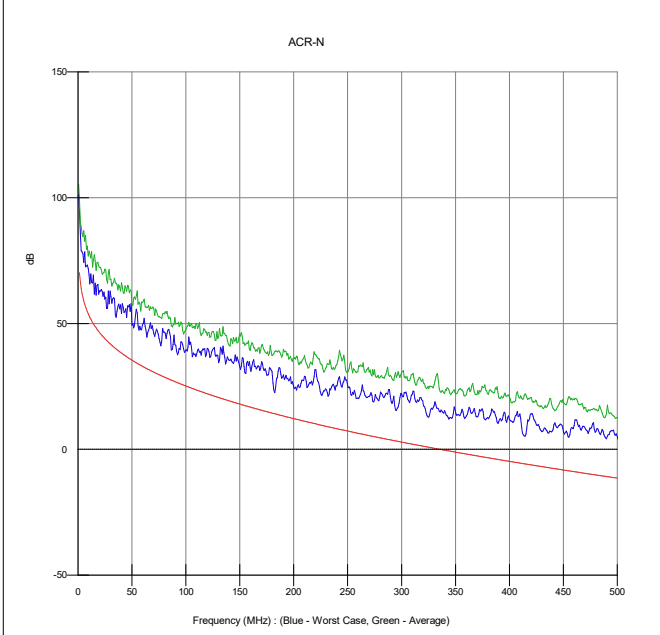


PSNEXT			
Freq	Worst Case	Average	Spec
1.	95.8	97.7	71.7
4.	79.7	82.2	63.3
8.	75.9	77.7	58.8
10.	74.4	76.5	57.3
16.	71.2	74.2	54.2
20.	69.9	71.9	52.8
25.	67.2	71.6	51.3
31.25	66.4	68.4	49.9
62.5	61.3	63.9	45.4
100.	55.1	58.4	42.3
250.	50.0	53.2	36.3
500.	42.5	46.4	31.8

Summary

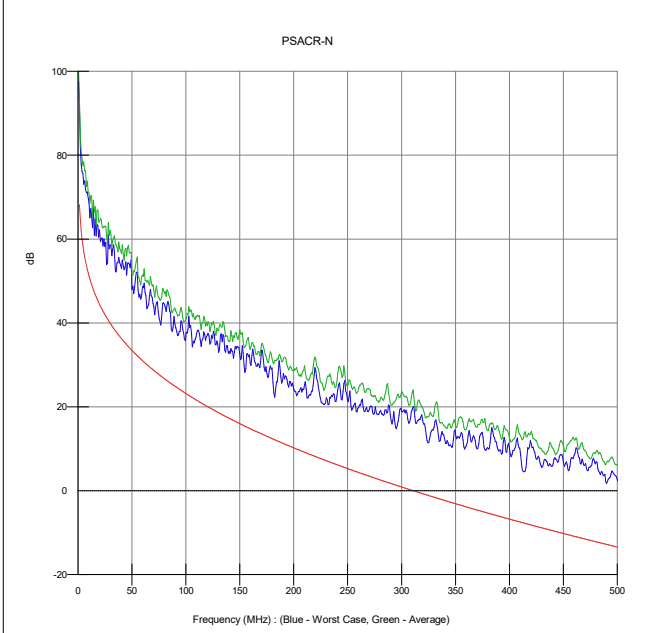
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 8.354 dB @ 182.360 MHz



ACR-N			
Freq	Worst Case	Average	Spec
1.	97.9	101.9	71.6
4.	78.2	85.5	61.5
8.	73.4	79.8	55.5
10.	70.1	78.2	53.4
16.	65.6	74.6	48.8
20.	63.0	72.3	46.4
25.	59.8	71.6	44.0
31.25	59.1	65.2	41.4
62.5	48.8	56.7	32.4
100.	39.6	47.6	25.2
250.	25.5	30.6	7.3
500.	4.9	12.6	-11.4

Limit Margin : 10.170 dB @ 182.360 MHz

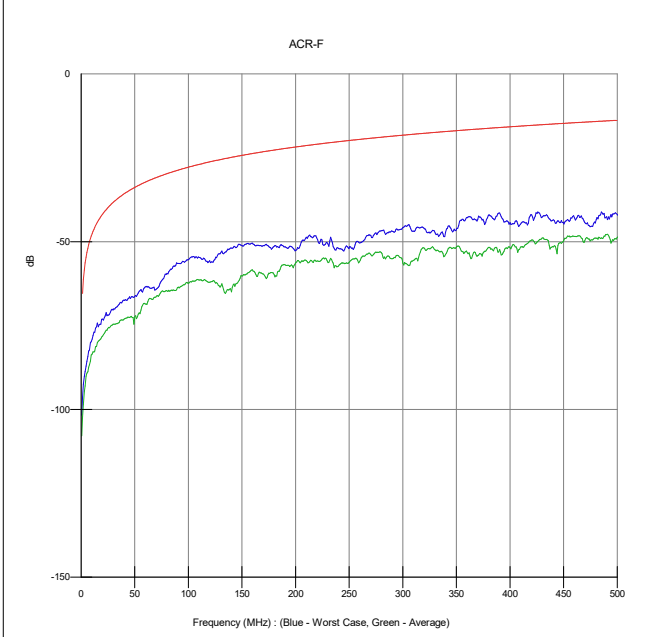


PSACR-N			
Freq	Worst Case	Average	Spec
1.	94.0	96.0	69.6
4.	76.3	78.7	59.5
8.	71.1	72.8	53.5
10.	68.9	71.0	51.4
16.	64.4	67.3	46.8
20.	62.2	64.2	44.4
25.	58.6	62.9	42.0
31.25	56.6	58.6	39.4
62.5	47.4	50.1	30.4
100.	37.4	40.8	23.2
250.	21.6	25.1	5.3
500.	2.6	6.1	-13.4

Summary

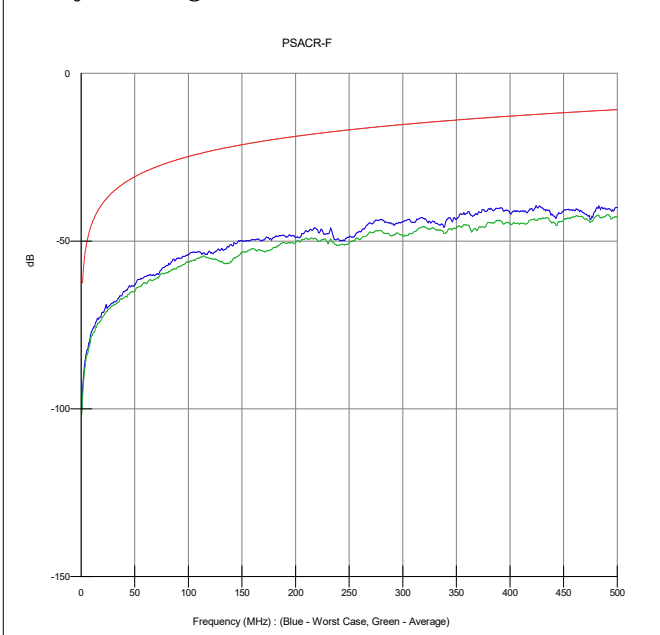
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 25.460 dB @ 390.200 MHz



ACR-F			
Freq	Worst Case	Average	Spec
1.	100.1	104.4	67.0
4.	88.5	92.1	55.8
8.	81.9	86.5	49.7
10.	79.3	83.6	47.8
16.	75.3	79.7	43.7
20.	73.1	78.2	41.8
25.	71.9	75.8	39.8
31.25	70.1	74.6	37.9
62.5	63.5	67.6	31.9
100.	55.4	62.4	27.8
250.	51.9	56.1	19.8
500.	41.9	48.7	13.8

Limit Margin : 27.049 dB @ 382.081 MHz

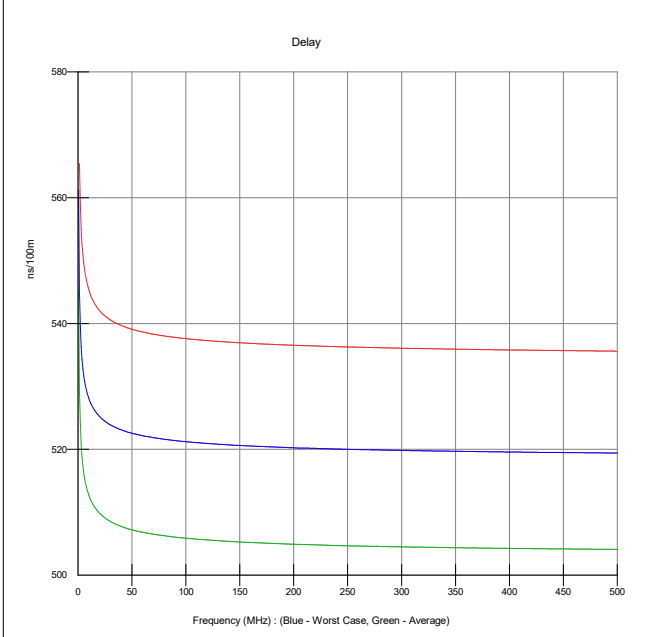


PSACR-F			
Freq	Worst Case	Average	Spec
1.	96.5	98.7	64.0
4.	85.1	86.7	52.8
8.	79.8	81.1	46.7
10.	76.8	78.2	44.8
16.	73.5	74.4	40.7
20.	71.2	72.7	38.8
25.	69.7	70.5	36.8
31.25	68.2	68.9	34.9
62.5	60.2	62.0	28.9
100.	54.1	56.4	24.8
250.	48.7	50.5	16.8
500.	39.9	42.7	10.8

Summary

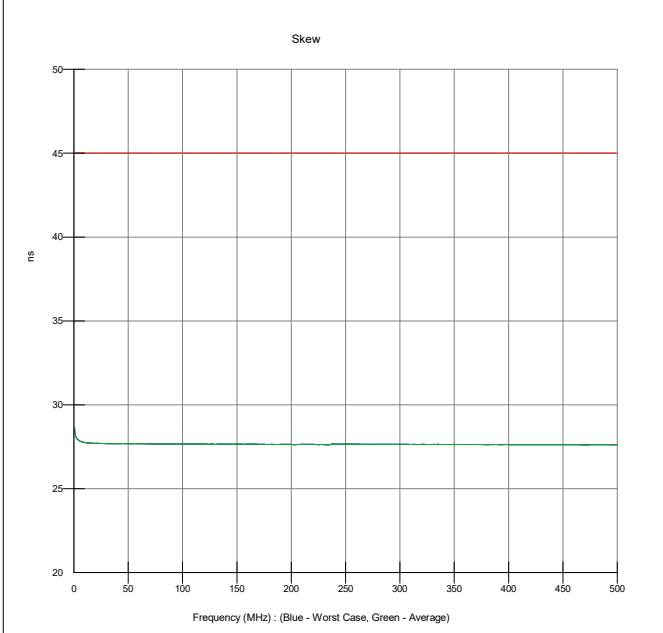
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 16.200 ns/100m @ 462.457 MHz



Delay			
Freq	Worst Case	Average	Spec
1.	551.3	535.6	568.0
4.	533.8	518.3	552.1
8.	529.3	513.9	546.7
10.	528.1	512.7	545.4
16.	526.1	510.7	543.0
20.	525.2	509.8	542.0
25.	524.5	509.1	541.2
31.25	523.8	508.4	540.4
62.5	522.1	506.7	538.6
100.	521.2	505.9	537.6
250.	520.0	504.7	536.3
500.	519.4	504.1	535.6

Limit Margin : 16.819 ns @ 1.312 MHz

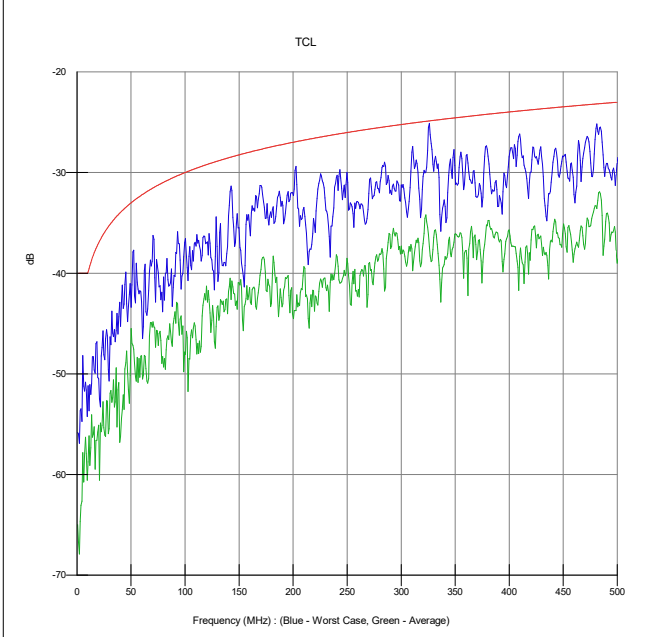


Skew			
Freq	Worst Case	Average	Spec
1.	28.4	28.4	45.0
4.	27.9	27.9	45.0
8.	27.8	27.8	45.0
10.	27.8	27.8	45.0
16.	27.7	27.7	45.0
20.	27.7	27.7	45.0
25.	27.7	27.7	45.0
31.25	27.7	27.7	45.0
62.5	27.7	27.7	45.0
100.	27.7	27.7	45.0
250.	27.7	27.7	45.0
500.	27.6	27.6	45.0

Summary

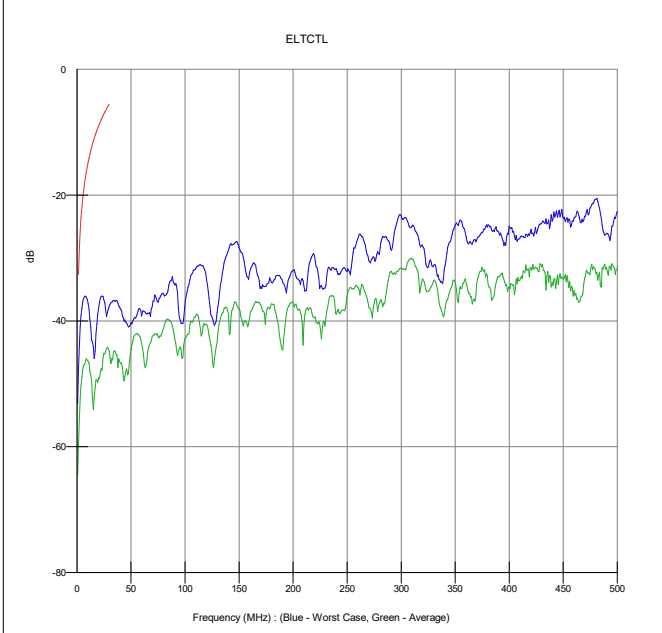
Client	Berk-Tek	Report No	104239938CRT-025a
Specification	ANSI-TIA-568-2-E Cat 6A Cable		
Part No	LM-10G CMR F/UTP	Length (m)	100.
Test Started	11/26/2024 2:24:14 PM	Temperature	21.8 °C
Description	4 Pair 23 AWG FUTP CMR Solid		
Operator Name	Craig Williams	Test Status	Complies

Limit Margin : 0.240 dB @ 326.062 MHz



TCL			
Freq	Worst Case	Average	Spec
1.	55.9	66.0	40.0
4.	53.9	62.9	40.0
8.	51.0	56.7	40.0
10.	52.1	59.3	39.9
16.	49.6	55.7	38.0
20.	50.6	55.2	37.0
25.	49.9	55.5	36.0
31.25	47.0	51.7	35.1
62.5	39.5	48.2	32.0
100.	36.7	48.0	30.0
250.	30.3	38.7	26.0
500.	28.9	38.9	23.0

Limit Margin : 15.231 dB @ 2.936 MHz



ELTCTL			
Freq	Worst Case	Average	Spec
1.	49.9	61.6	34.2
4.	38.8	49.8	23.0
8.	36.1	46.3	16.9
10.	37.1	46.3	15.0
16.	46.1	52.0	10.9
20.	37.9	49.0	9.0
25.	36.7	45.1	7.0
31.25	37.1	46.7	
62.5	38.5	47.0	
100.	37.2	42.8	
250.	32.0	35.9	
500.	22.6	31.6	